



The ADS-B Plan -- Closing Remarks

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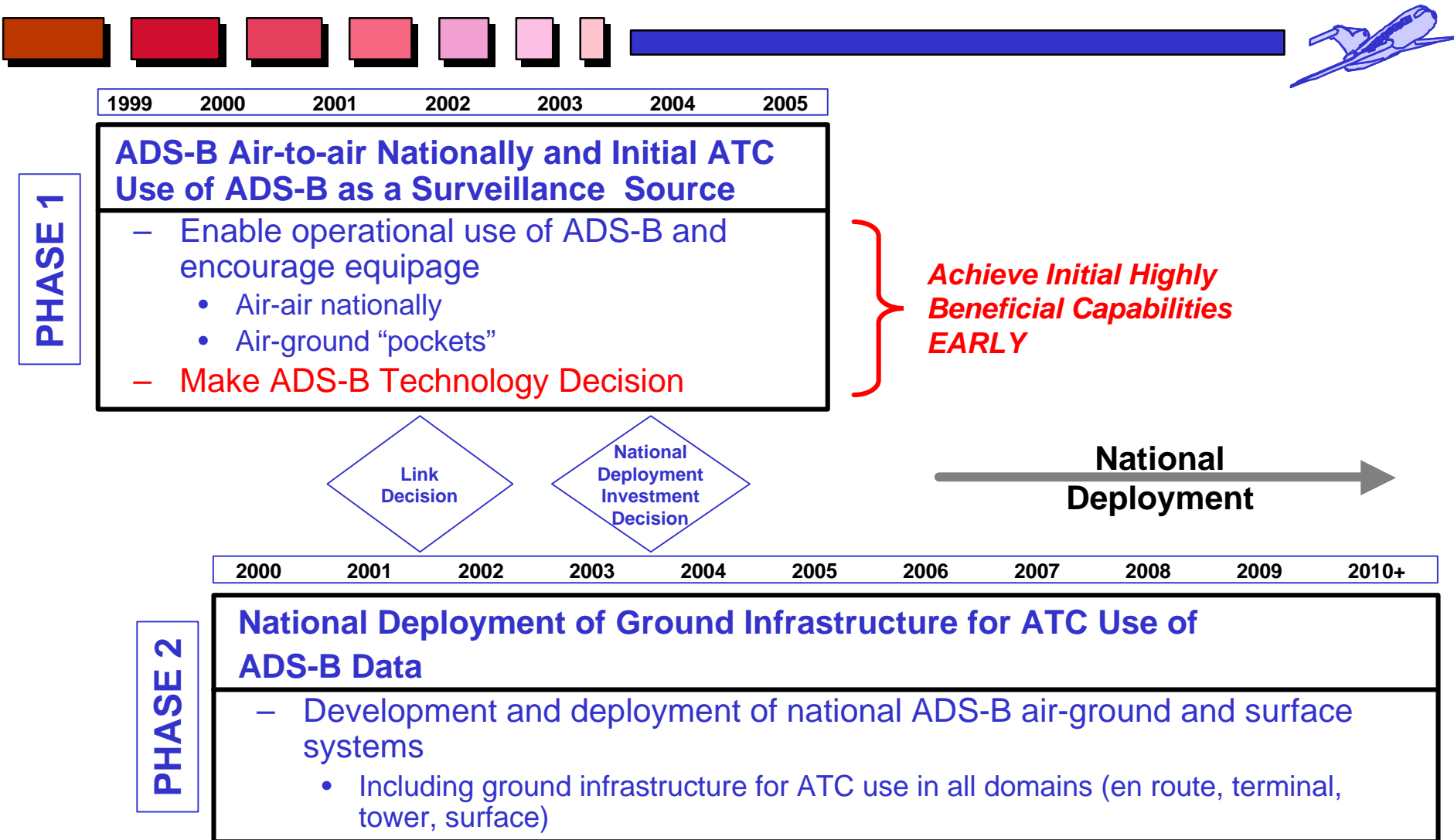
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Agenda



- Where Were We?
- Where Are We Today?
- What's the Status of the Link Decision?

ADS-B Plan: Two Implementation Phases



From May RTCA Meeting on ADS-B: Link Decision



What We Know

- Technical Link Assessment Team Report
 - no clear favorite
- Cost Benefit Assessment
 - no clear favorite
- Capstone Operations & Safe Flight 21 Demonstrations
- Eurocontrol not planning to make an ADS-B link recommendation this year

What We Don't Know -- *still basically true today*

- Surface performance not assessed in TLAT report
- User Intention--which applications?
- Incentive for equipage--general aviation and air carriers

From May RTCA Meeting on ADS-B: Action Plan



- Important for FAA to make a link decision to support *specific* Operational Evolution Plan applications
- Important for FAA to make a link decision so avionics manufacturers can produce allowing users/applicants to equip and therefore gain benefits from ADS-B capabilities

We Need Your Help

- FAA plans to hold a series of public meetings to address the technical/manufacturing aspects/issues/risks of the candidate links and single/multi-link decision -- *thank you*
- The FAA needs to gain better insight with avionics costs and feasibility -- *we did, thank you*

Today: What Data Do We Have To Make a Link Decision?



- **Technical/Transitional**

- TLAT report
- Operational Safety Assessment
- Additional Data:
 - Follow-on Link Simulation Results (1090 ES, UAT, VDL Mode 4)
 - Additional Flight Test Results (1090 ES)
 - Additional Lab Test Data (1090 ES, UAT)
 - Assessment of Application Supportability by Link
 - Assessment of Architectural Transition Paths
 - Results of Vendor Surveys

- **Financial**

- Pre-Investment Cost Benefit Analysis
- Additional Data:
 - Vendor Cost Surveys *thank you for providing data*
 - Eurocontrol Cost/Benefit Data
 - DoD Cost Study
 - Reassessment of User Equipage/Priorities *thank you for providing data*

Other Factors That May Influence a Link Decision



- Operational implementation considerations
- DOD/DOT Coordination
- ADS-B vulnerability assessment
- Effects of September 11th
 - Homeland security and defense requirements?
 - Impact on user equipage?
 - Timing for a link decision?

Closing Thoughts



- Thank you for providing such valuable information to the FAA regarding
 - differentiation of various multi-link alternatives
 - user equipage rates and priorities
 - the cost of equipping aircraft with ADS-B, particularly the cost of installing and certifying cockpit displays
- We will keep you informed of our plans and progress

Backup Slides

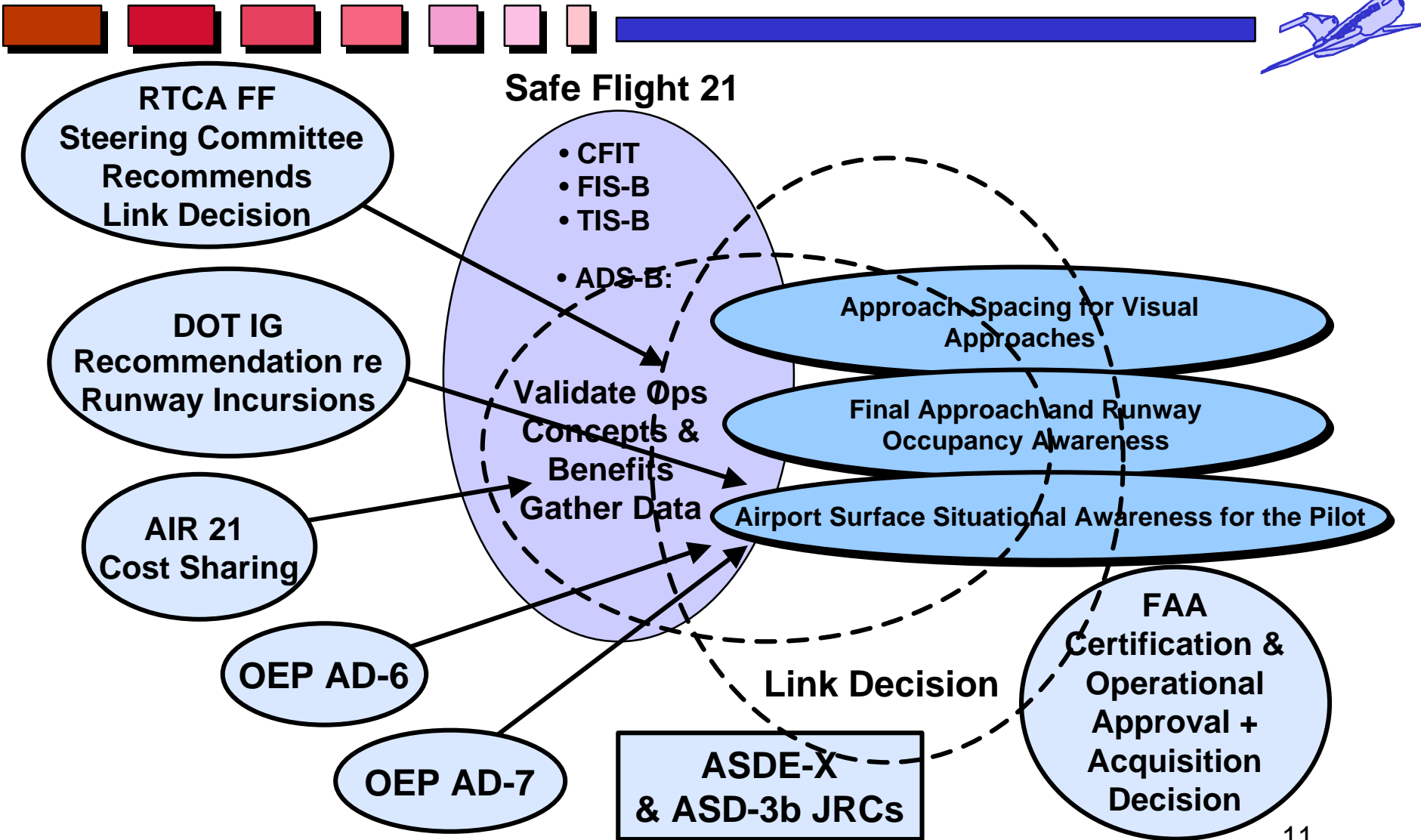


Why Do the Aviation Community & FAA Want ADS-B? *Still true?*



- ADS-B is seen as a cornerstone enabler for free flight!
 - Increase capacity & efficiency while improving safety
- Increased Safety
 - Common Situational Awareness to all users
- Increased Efficiency & Capacity
 - Improved use of current procedures and standards - e.g. visual approach spacing; “radar like services” in non-radar areas
 - Longer Term - Reduced separation based on improved surveillance source and/or new procedures/roles
 - NAS to operate at VFR capacity in all weather conditions
- Improved performance of decision support tools
 - *Which supports safety, efficiency and capacity gains*

Why Now For a Link Decision? *Still true?*



ADS-B Link Decision Factors -- *Still true?*



- **Technical Evaluation Factors**

- Desired Operational Applications and Technical Requirements to support them (requirements, MASPS, future needs, etc.)
- Technical implications of Operational Safety Assessment, of Spectrum Availability, and of Multiple Links

- **Investment Evaluation Factors**

- Avionics & Ground infrastructure cost, including spectrum, TIS-B and FIS-B (via ADS-B or other link); implications of Operational Safety Assessments

- **Transition and Institutional Evaluation Factors**

- Certification
- Integration with NAS vision and architecture
- International/EUROCONTROL acceptance and interoperability
- Benefits to FAA and Users (multiple constituencies)
 - Safety & Efficiency issues at pacing airports airline focus
 - AOPA will continue to advocate Capstone support & UAT
- Runway Incursion Safety Case limited mandate could start things

What Does an ADS-B Link Decision Mean? *Still true?*



- Decision identifies which applications can (or cannot) be used on the link
- Decision affirms agency's support to develop, as necessary, MOPS, ACs, TSO, standards
- Decision affirms agency's support to spectrum planning
- Agency "pushes" its decision as the dominant link
- Decision identifies the technology to be acquired for additional ground station investment
- Local pockets must be self-supporting (by the time of the link decision several local pockets will have existed for several years and must be considered as interim solutions or be treated as self-supporting local pockets)